APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/447,472	11/23/1999	JAMES B. ARMSTRONG	007412.00289	3863

71867   7590   02/15/2011
BANNER & WITCOFF , LTD
ATTORNEYS FOR CLIENT NUMBER 007412
1100 13th STREET, N.W.
SUITE 1200
WASHINGTON, DC 20005-4051

EXAMINER
CHOWDHURY, SUMAIYA A

ART UNIT	PAPER NUMBER
2421	

MAIL DATE	DELIVERY MODE
02/15/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.</td><td>Applicant(s)</td></tr>
<tr><td>09/447,472</td><td>ARMSTRONG ET AL.</td></tr>
<tr><td></td><td>Examiner</td><td>Art Unit</td><td></td></tr>
<tr><td></td><td>SUMAIYA A. CHOWDHURY</td><td>2421</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *13 December 2010*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-4,6-8,19,21-25 and 27-34* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-4, 6-8, 19, 21-25, 27-34* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All   b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Remarks, filed 12/13/10, with respect to the prior art

have been fully considered and are persuasive. The Office Action of 9/13/10 has

been withdrawn.

(a) Applicant argues that the prior art reference to Kenner fails to disclose that

infrequently requested assets are transmitted to a secondary partition based on the

requests it receives.

   In the current Office Action, the Examiner has brought in Hokanson (6094680)

and Albrecht (5999351) to teach this limitation.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4, 6-8, 19, 21-25, and 27-34 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hokanson (6094680) in view of Albrecht (5999351).

   As for claim 1, Hokanson teaches:

   A server configured to distribute requested video assets to requesting user

equipment via the access network (col. 3, lines 1-5), the server comprising;

a manager for managing migration of video assets, wherein the manager tracks asset request rates and threshold rates of respective video assets (col. 2, lines 42-48, col. 6, lines 35-45);

wherein the manager (70, 72), in response to an infrequently requested video asset becoming frequently requested, is configured to select and transmit the frequently requested video asset to at least one primary partitions of at least one server (col. 2, lines 55-60, col. 3, lines 23-30, col. 9, lines 43-47, lines 55-67);

wherein the manager, in response to a frequently requested video asset becoming infrequently requested, is configured to select and transmit the infrequently requested video asset to at least one secondary partition of at least one server (col. 6, lines 35-45, col. 9, lines 43-47, lines 55-67)

Hokanson teaches the hierarchical use of various mediums for storage of the video assets where each of the video assets are prioritized within a storage hierarchy. This hierarchical structure can be treated as the equivalent of Applicant's partitioning of the storage between primary and secondary partitions. However, Hokanson fails to explicitly disclose:

a storage medium comprising a primary storage partition configured to store frequently requested video assets, and a secondary storage partition configured to store infrequently requested video assets.

In an analogous art, Albrecht discloses:

a storage medium comprising a primary storage partition configured to store frequently requested video assets, and a secondary storage partition configured to store

infrequently requested video assets (col. 2, lines 35-49, col. 5, lines 2-9, col. 7, lines 25-49).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Hokanson's invention to include the abovementioned limitation, as taught by Albrecht, for the advantage of handling user requests for highly requested content more expediently, thereby allowing the total data storage capacity of the direct access storage device to be increased without degrading the data-accessing performance.

As for claim 2, Hokanson discloses the manager is configured to identify an infrequently requested video asset as becoming frequently requested when the asset request rate crosses above the threshold rate; the manager is configured to identify a frequently requested video asset as becoming infrequently requested when the asset request rate crosses below the threshold rate (A threshold is inherent in the distinction between content requested by a "large number of subscribers" and content that is "rarely" requested; col. 2, lines 55-60, col. 3, lines 23-30, col. 9, lines 43-47, lines 55-67, col. 6, lines 35-45).

As for claim 3, Hokanson teaches in response to receiving a request for a video asset, the manager is configured to control distribution of the requested video asset from one of the server identified as storing the requested video asset to the requesting user equipment (col. 3, lines 1-11, col. 7, lines 35-42).

As for claims 4 and 22, Hokanson discloses:

a content manager for receiving the request for the video asset and determining

whether the requested video asset is stored locally in the storage of that head-

end at which the video asset request is received or stored remotely in the storage

of a different head-end (col. 7, lines 25-42);

a stream session manager, for directing the associated server to distribute

streams of video assets to subscriber equipment requesting said the video

assets (col. 7, lines 25-42);

a content session manager for responding to video asset requests forwarded

from managers of other server (col. 7, lines 25-42).

As for claims 6 and 27, Hokanson discloses wherein a content manager of the

local server at which a video asset request is received, in response to determining that

a requested video asset is stored locally, is configured to notify the stream session

manager to deliver the requested video asset by the local server to the requesting

subscriber equipment via the access network (col. 7, lines 57-67).

As for claim 7, Hokanson teaches wherein the content manager of a local head-

end at which a video asset request is received, in response to determining that a

requested video asset is stored remotely in the storage of a remote head-end, instructs

the stream session manager of the local head-end to contact the content session manager of the remote head-end (col. 7, lines 25-42).

As for claim 8, Hokanson teaches wherein the content session manager of the remote head-end identifies the requested video asset in the storage of the remote head-end, allocates bandwidth for transmitting the requested video asset, and, in response to a determination that the requested video asset is to be provided from the remote head-end to the requesting subscriber equipment via the local head-end, notifies the server of the remote head-end to transmit the requested video asset to the local head-end using the inter-server network (col. 7, lines 25-42).

Claim 19 contains the limitations of claim 1 and is analyzed as previously discussed with respect to that claim. Claim 19 additionally calls for the following which Hokanson teaches:

determining an asset request rate for a plurality of video assets stored in each of a plurality of servers (col. 2, lines 42-48);

comparing the determined asset request rates with respective threshold rates of the plurality of the video assets (col. 6, lines 32-45);

Claim 21 contains the limitations of claim 1 and is analyzed as previously discussed with respect to that claim.

As for claim 23, Hokanson discloses wherein the identified head-end is the local head-end coupled directly to the requesting subscriber equipment, the local head-end provides the requested video asset to the requesting subscriber equipment via the access network (col. 7, lines 58-67)

As for claims 24, Hokanson discloses wherein, the identified head-end is one of the remote head-ends, the local head-end requests the requested video asset from the remote head-end and the remote head-end provides the requested video asset to the local head-end via an inter-server network (col. 7, lines 25-42).

Claim 25 contains the limitations of claims 1 and 4 and is analyzed as previously discussed with respect to those claims.

As for claim 28, Hokanson discloses wherein, the identified head-end is one of the remote head-ends, the local head-end requests the requested video asset from the remote head-end and the remote head-end provides the requested video asset to the local head-end via an inter-server network (col. 7, lines 25-42).

As for claim 29, Hokanson discloses wherein the content session manager of the remote head-end identifies the requested video asset in the storage of the remote head-end and allocates bandwidth for transmitting the requested video asset (col. 8, lines 1-

17).

As for claim 30, Hokanson teaches in response to a determination that the requested video asset is to be provided from the remote head-end to the requesting subscriber equipment via the local head-end, the content session manager of the remote head-end notifies the server of the remote head-end to transmit the requested video asset to the local head-end (col. 8, lines 1-17).

As for claim 31, Hokanson teaches in response to a determination that the server of the local head-end is available to receive the requested video asset from the remote head-end, the server of the remote head-end streams the requested video asset to the local head-end over the inter-server network – col. 8, lines 1-17.

As for claim 32, Hokanson teaches wherein the server of the local head-end received the requested video asset from the server of the remote head-end, wherein the received video asset is stored in the storage of the local head-end – col. 7, lines 57-67.

As for claim 33, Hokanson teaches in response to a determination that the requested video asset is to be provided directly from the remote head-end to the requesting subscriber equipment, the content session manager of the remote head-end requests the stream session manager of the remote head-end to allocate bandwidth for providing the requested video asset to the requesting subscriber equipment – col. 8,

lines 1-17.

As for claim 34, Hokanson teaches wherein the stream session manager of the remote head-end notifies the server of the remote head-end to stream the requested video asset to the requesting subscriber equipment– col. 8, lines 1-17.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUMAIYA A. CHOWDHURY whose telephone number is (571)272-8567. The examiner can normally be reached on Mon-Fri, 9-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sumaiya A Chowdhury/
Examiner, Art Unit 2421

/Hunter B. Lonsberry/
Primary Examiner, Art Unit 2421